

numerous (Pl. 17, fig. 6). The vascular area covers more than half of the yolk mass, and plunges deeply into its interior (Pl. 15, fig. 11, 12, 12a; Pl. 16, fig. 5). The vena afferens plunges suddenly into the mass of the yolk at a point close to the head (Pl. 15, fig. 12). The vena terminalis has sunk still further below the surface of the yolk, and at the superficial termination of the vascular area the vessels become very numerous and anastomose freely with one another and with those situated more deeply (Pl. 17, fig. 6).

The feet (Pl. 14, fig. 1; Pl. 15, fig. 12; Pl. 16, fig. 5; Pl. 25, fig. 11) begin to show signs of the toes, and the tissue (Pl. 21, fig. 22, 22a, 24) in such places has a different appearance from that of the neighboring parts; but as yet the former passes gradually into the latter (Pl. 21, fig. 25.) The form of the feet is changed, either to a broader fan-shaped figure, as among the Chelydroidæ (Pl. 14, fig. 1; Pl. 15, fig. 12) and Emydoidæ, (Pl. 16, fig. 5; Pl. 25, fig. 11,) or to a more elongated and oar-shaped form, as among the Chelonoidæ (Pl. 6, fig. 22). The anus (Pl. 14, fig. 1) is a very prominent feature at this age, just as it is in the adults of some of the lower families, namely, in the Chelonoidæ and Trionychidæ.

In the next phase, (Pl. 18a, fig. 2, 3; Pl. 17, fig. 2, 3, 3a, 7; Pl. 18, fig. 1; Pl. 19, fig. 13, 13a, 13b, 13c; Pl. 20, fig. 2; Pl. 23, fig. 2, 2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h; Pl. 24, fig. 5; Pl. 25, fig. 4, wood-cut 2,) the former great disproportion between the head and body has lessened very much, the body having grown faster than the head. The embryo has the power to move not only the head and feet and tail, and the lower jaw and tongue, but also the toes, separately, and to roll the eyes. The shield (Pl. 18a, fig. 2 and 3) has become a very prominent feature, and the ribs are quite marked.

The brain (Pl. 23, fig. 2, 2a, 2b, 2c, 2d) has its different regions more distinctly marked out; the olfactory lobes, (fig. 2, 2a, 2b, c,) and the cerebellum (fig. 2, 2a, 2b, c) in particular, are more prominent, and the olfactory nerve more lengthened (fig. 2, 2a, 2b, from c, to c'). The more elongated hemispheres (fig. 2, 2a, 2b, a) are nearly on a level with, and more closely approximated to, the corpora quadrigemina, (fig. 2, 2a, 2b, b,) so as to touch them, and cover at least two thirds of the pineal gland (fig. 2a, 2b, d). The communications between the different lobes are narrower, both between those of the same side and those of opposite halves. This is especially marked in reference to the opening (fig. 2b, m) between the two hemispheres (a). The medulla oblongata (Pl. 23, fig. 2, f, 2a, f, 2b, f') is bent forward and downward at an acute angle upon itself, so that the point from whence the acoustic nerve (fig. 2, l) arises, touches the lower border of the optic lobe (fig. 2, k'). The bloodvessels of the arachnoid plexus, which terminate suddenly, (Pl. 23, fig. 2b, g, 2c, 2f, 2g, 2h,) have become quite numerous and elongated. The vascular covering to the fourth ventricle (fig. 2b, g') is highly developed.